California Environmental Protection Agency

Air Resources Board

Vapor Recovery Equipment Defects List

Adopted: September 23, 2002

Vapor Recovery Equipment Defects List

Date of Issuance: September 23, 2002

All Systems/any E.O.		
equipment	defects	verification procedure
system	any equipment defect which is identified in an Executive Order (E.O.) certifying a system pursuant to the Certification Procedures incorporated in Section 94011 of Title 17, California Code of Regulations	as set forth in the applicable E.O.
	absence or disconnection of any component required to be used in the E.O.(s) that certified the system	direct observation
	installation or use of any uncertified component	direct observation
	dispensing rate greater than ten gallons per minute (10.0 gpm) or less than the greater of five (5.0) gpm or the limit stated in the E.O. measured at maximum fuel dispensing	direct measurement for 60 seconds minimum
	phase I vapor poppet inoperative	direct observation
nozzles	nozzle automatic liquid shutoff mechanisms which malfunction in any manner	EPO No. 26-F-1/direct observation

G-70-7 series Hasstech VCP-2 and VCP-2A		
equipment	defects	verification procedure
system	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
	defective vapor valve	GDF-01/GDF-03
hoses	any coaxial hose with a perforation exceeding one-eighth (0.13) inch diameter	direct measurement/ observation
	any coaxial hose with slits or tears in excess of one-fourth (0.25) inch in length	direct measurement/ observation
processing unit	three consecutive unsuccessful attempts to ignite the incinerator which occur at least two hours after a bulk delivery	direct measurement/ observation/system monitor observation
	unit does not activate when the system pressure reaches or exceeds two (2.0) inches water column and occurs at least two hours after a bulk delivery	direct measurement using storage tank pressure device
	emissions which exceed Ringelmann one-half (½) or ten percent (10%) opacity and not attributable to a bulk delivery	Method 9
	vapor processing unit inoperative *	direct observation
collection unit	vacuum producing device inoperative	direct observation

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-14 series Red Jacket	G-70-17 series Emco Wheaton	G-70-23 series Exxon
G-70-25 series Atlantic Richfield	G-70-33 series Hirt	G-70-36 series OPW
G-70-38 series Texaco	G-70-48 series Mobil	G-70-49 series Union
G-70-52 series Red Jacket, Hirt	G-70-53 series Chevron	G-70-78 series EZ-flow rebuilds
G-70-107 series Rainbow rebuilds	G-70-125 series Husky Model V	G-70-127 series OPW 111V
G-70-134 series EZ-flow rebuilds	G-70-170 series EZ-flow rebuilds	

equipment	defects	verification procedure
nozzles	any nozzle boot torn in one or more of the following manners: a triangular-shaped or similar tear one-half (0.50) inch or more on any side, or hole one-half (0.50) inch or more in diameter, or slit one (1.0) inch or more in length	direct measurement/ observation
	any faceplate or flexible cone damaged in the following manner: for balance nozzles and for nozzles for aspirator and eductor assist type systems, damage such that the capability to achieve a seal with a fill pipe interface is affected for one-fourth (0.25) of the circumference of the faceplate (accumulated)	direct measurement/ observation
	flexible cone damaged in the following manner: for booted type nozzles for vacuum assist-type systems, more than one-fourth (0.25) of the flexible cone missing	direct measurement/ observation
	insertion interlock mechanism which will allow dispensing when the bellow is uncompressed	direct observation
hoses	any coaxial balance hose with 100 ml or more liquid in the vapor path	direct measurement
	any hose with a visible opening	direct observation
processing unit	vapor processing unit inoperative *	direct observation
vapor return lines	pressure drop through the vapor path exceeds by a factor of two or more requirements specified in the Executive Order(s) that certified the system	TP201.4 or equivalent

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G-70-118 series Amoco V-1		
equipment	defects	verification procedure
system	defective vapor valve	GDF-01/GDF-03
	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
Husky V-1 nozzle	efficiency compliance device (ECD) damaged such that at least one eighth (0.13) of the diameter is missing	direct measurement/ observation
	less than two unblocked vapor holes	direct observation
OPW 11-VAA nozzle	any ECD damaged such that a slit from the outer to inner edge exists	direct measurement/ observation
	less than three unblocked vapor holes	direct observation

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-150 series Marconi (Gilbarco)Vapor Vac		
equipment	defects	verification procedure
system	pressure drop through the system exceeds one-half (0.50) inches water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	defective vapor valve	GDF-01/GDF-03
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	both booted and unbooted nozzle types connected to the same vapor pump	direct observation
	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
Catlow ICVN nozzle	less than three unblocked vapor holes	direct observation
	efficiency compliance device slit from base to the rim	direct observation
Emco Wheaton A4505 nozzle	less than three unblocked vapor holes	direct observation
	one-eighth (0.13) of vapor guard circumference missing	direct measurement/ observation
Emco Wheaton A4500 nozzle	less than three unblocked vapor holes	direct observation
Husky V34 6250 nozzle	a one and one-half (1.5) inch slit in vapor splash guard	direct measurement/ observation
	any hole greater than three-eighths (0.38) inch in vapor splash	direct measurement/ observation
Husky V3 6201 nozzle	all vapor holes blocked	direct observation
OPW 11VAI nozzle	less than four unblocked vapor holes	direct observation
OPW12VW nozzle	all vapor holes blocked	direct observation
	vapor escape guard with three-fourths (0.75) of the circumference missing	direct measurement/ observation

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G-70-153 series Dresser/Wayne Vac		
equipment	defects	verification procedure
system	any splash guard that interferes with the operation of a vapor escape guard (VEG) or vapor splash guard (VSG) unit	direct measurement/ observation
	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
	defective vapor valve	GDF-01/GDF-03
OPW 11VAI and Husky V34 6200-4 nozzles	less than two unblocked vapor holes	direct observation
	any VEG damaged such that at least one-eighth (0.13) of the circumference is missing	direct measurement/ observation
Husky V34 6200 nozzle	less than two unblocked vapor holes	direct observation
Husky V34 6200 and V34 6250 nozzles	any VSG damaged such that at least a one and one-half (1.5) inch slit has developed	direct measurement/ observation
	any VSG flange portion that does not make contact with or cover the entire fill-pipe opening	direct measurement/ observation
	any VSG with a hole greater than three-eighths (0.38) inch	direct measurement/ observation
Emco Wheaton A4505 nozzle	less than three unblocked vapor holes	direct observation
	any vapor guard (VG) damaged such that at least one-eighth (0.13) of the circumference is missing	direct measurement/ observation
Catlow ICVN and Richards Astrovac nozzles	less than three unblocked vapor holes	direct observation
	any efficiency compliance device damaged with a slit from the base to the rim	direct observation
OPW 12VW nozzle	all vapor holes blocked	direct observation
	any VEG damaged such that at least three-quarters (0.75) of the circumference is missing	direct measurement/ observation

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-154 series Tokheim MaxVac		
equipment	defects	verification procedure
nozzles	defective vapor valve	GDF-01/GDF-03
OPW 11VAI and Husky V34 6200-5 nozzles	efficiency compliance device (ECD) damaged such that at least one-fourth (0.25) of the circumference is missing	direct measurement/ observation
Husky V34 6200 and V34 6250 nozzles	less than two unblocked vapor holes	direct observation
	vapor splash guard (VSG) damaged such that at least a one and one-half (1.5) inch slit has developed	direct measurement/ observation
	VSG damaged such that greater than a three-eighths (0.38) inch hole has developed	direct measurement/ observation
Emco Wheaton A4505	less than seven unblocked vapor holes	direct observation
Catlow ICVN and Richards Astrovac	less than four unblocked vapor holes	direct observation
	any nozzle with an ECD damaged with at least one-fourth (0.25) of the circumference missing	direct measurement/ observation
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-159 series Saber nozzle for Gilbarco (Marconi) Vapor Vac and WayneVac		
equipment	defects	verification procedure
nozzles	a fill guard damaged such that at least one-fourth (0.25) of the outer edge of the guard is missing	direct measurement/ observation
	less than four unblocked vapor holes on the Gilbarco (Marconi) systems	direct observation
	less than two unblocked vapor holes on the WayneVac systems	direct observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-163 series OPW Vapor EZ		
equipment	defects	verification procedure
nozzles	efficiency compliance device damaged such that at least one-eighth (0.13) of the diameter is missing	direct measurement/ observation
	less than three unblocked vapor holes	direct observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-164 series Hasstech VCP-3A		
equipment	defects	verification procedure
system	defective vapor valve	GDF-01/ GDF-03
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
OPW 11VAI steel spout	less than six unblocked vapor holes	direct observation
OPW 11VAI aluminum spout	less than four unblocked vapor holes	direct observation
Husky V3 6201 nozzle	all vapor holes blocked	direct observation
Husky V34 6200-8 nozzle	all vapor holes blocked	direct observation
Emco Wheaton A4500 nozzle	any visible puncture or tear of the vapor guard/vapor seal assembly	direct observation
	less than three unblocked vapor holes	direct observation
collection unit	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	normal operating level at the inlet of the collection unit less than thirty (30) inches water column vacuum	direct measurement/ observation
processing unit	emissions which exceed Ringelmann one-half (½) or ten percent (10%) opacity and not attributable to a bulk delivery	Method 9
	twenty (20) consecutive unsuccessful attempts to ignite the process unit	direct measurement/ observation/ system monitor observation
	dispensing when the process unit is disabled	direct measurement/ observation/system monitor observation
	processing unit inoperative *	direct observation
ECS-1 electronic control and status panel	ratio of process unit/solenoid valve time less than nine tenths (0.90)	direct measurement/ observation

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-165 series Healy Model 600		
equipment	defects	verification procedure
nozzles	any nozzle with a vapor guard damaged such that a slit from the outer edge of the open end flange to the spout anchor clamp	direct observation
	any nozzle which has fewer than four unblocked vapor collection holes	direct observation
	defective vapor valve	GDF-01/GDF-03
	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
system	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
central vacuum unit	dispensing when the central vacuum unit is disabled *	direct measurement/ observation/system monitor observation
	vacuum level outside of the range specified in G-70-165 for more than fifteen (15) seconds (Approval Letter 97-20), measured while dispensing is occurring	direct measurement/ observation/system monitor observation
	product dispensed when the vapor return line valve is closed	direct measurement/ observation/TP201.5

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G-70-169 series Franklin Electric Intellivac		
equipment	defects	verification procedure
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
	defective vapor valve	GDF-01/ GDF-03
OPW 11VAI nozzle	efficiency compliance device damaged such that at least one-fourth (0.25) of the circumference is missing	direct measurement/ observation
	fewer than two unblocked vapor collection holes	direct observation
Husky V34 6250 nozzle	any nozzle with a vapor splash guard (VSG) damaged such that at least one and one-half (1.5) inch slit has developed	direct measurement
	any VSG damaged such that greater than a three-eighths (0.38) inch hole has developed	direct measurement

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G-70-175 series Hasstech VCP-3A		
equipment	defects	verification procedure
system	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
Emco Wheaton A4500 nozzle	fewer than three unblocked vapor collection holes	direct observation
	any visible puncture or tear of the vapor guard/vapor seal assembly	direct observation
Husky V34 6200-8	all vapor collection holes blocked	direct observation
dispenser	defective vapor valve	GDF-01/ GDF-03
collection unit	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	dispensing when the collection unit is disabled	direct observation
processing unit	twenty consecutive unsuccessful attempts to ignite the processing unit	direct observation/ system monitor observation
	emissions which exceed Ringelmann one-half (½) or ten percent (10%) opacity and not attributable to a bulk delivery	Method 9
	dispensing when the processing unit is disabled	direct observation/ system monitor observation
	processing unit inoperative *	direct observation

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G-70-177 series Hirt VCS400-7		
equipment	defects	verification procedure
system	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	processing unit inoperative *	direct observation
OPW 11VA-29 nozzle	defective vapor valve	GDF-01/ GDF-03
	less than five unblocked vapor collection holes	direct observation
hoses	any visible puncture or tear equivalent to a diameter of 0.136 inches or greater	direct measurement/ observation

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-179 series Catlow ICVN-VI		
equipment	defects	verification procedure
nozzles	efficiency compliance device damaged such that at least three-fourths (0.75) of the diameter is missing	direct measurement/ observation
	any nozzle which has less than four unblocked vapor collection holes	direct observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

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G-70-183 series Healy/Franklin Vac Assist		
equipment	defects	verification procedure
nozzles	a vapor guard damaged such that a slit exists from the outer edge of the open end flange to the spout anchor clamp	direct observation
	any nozzle which has less than four unblocked vapor collection holes	direct observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

G-70-186 series Healy Model 400 ORVR		
equipment	defects	verification procedure
nozzles	any operating pressure range at the nozzle boot/fill-pipe interface less than one-half (0.50) inches water column vacuum or greater than one-fourth (0.25) inches water column pressure	EO G-70-186 Exhibit 5
	defective vapor valve	GDF-01/GDF-03
system	system not operating within the vacuum level range as per G-70-186	direct measurement/ observation/ system monitor observation
	product dispensed when the central vacuum unit is inoperative or disabled *	direct measurement/ observation/TP201.5 or equivalent system monitor observation
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

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G-70-187 series Healy 400 ORVR AGT		
equipment	defects:	verification procedure
nozzles	any operating pressure range at the nozzle boot/fill-pipe interface less than one-half (0.50) inches water column vacuum or greater than one-fourth (0.25) inch water column pressure	EO G-70-187 Exhibit 5 test
	nozzle boot tears greater than one-half (0.50) inch in length	direct measurement/ observation
central vacuum unit	system vacuum less than sixty-five (65) inches or greater than eighty-five (85) inches water column	direct measurement/ observation
	system does not achieve an operating vacuum of sixty-five (65) inches water column within fifteen (15) seconds after the system is energized	direct measurement/ observation
	system does not achieve an operating vacuum of sixty-five (65) inches water column for three consecutive dispensing episodes	direct measurement/ observation
	system does not achieve an operating vacuum of sixty-five (65) inches water column within a one hour period for any single dispensing episode	direct measurement/ observation
	vacuum level dropping below sixty (60) inches water column for more than three seconds after the system has reached sixty-five (65) inches water column, while dispensing is occurring	direct measurement/ observation
	vacuum level above ninety (90) inches water column while dispensing is occurring	direct measurement/ observation
	product dispensing when the non-restrictive ball valve installed in the vapor return line is closed	direct measurement/ observation
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
Phase II system	any venting through system monitor vent in excess of ten hours in any calendar day not attributable to a Phase I fuel delivery	direct measurement/ observation/ system monitor observation

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G-70-188 series Catlow ICVN w/Gilbarco (Marconi) VaporVac System		
equipment	defects	verification procedure
nozzles	ECD damaged such that at least three-fourths (0.75) of the diameter is missing	direct measurement/ observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

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G-70-191 series Healy ORVR		
equipment	defects	verification procedure
nozzles	any nozzle with a vapor collection boot which has one-half (0.50) of the mini-boot faceplate or greater missing	direct measurement/ observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard	TP201.5 or equivalent
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent

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G-70-193 series Hill-Vac		
equipment	defects	verification procedure
system	fillpipe gauge pressure less than negative one (–1.0) inch or greater than two (2.0) inches water column	direct measurement/ observation
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	pressure drop through the system exceeds one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
nozzles	a boot with any tear exceeding one-half (0.50) inch	direct measurement/ observation
	faceplate damage such that the fillpipe interface is adversely affected for twenty-five percent (25%) or more of the circumference of the faceplate	direct measurement/ observation
jet pump	dispensing of gasoline when either jet pump is disabled	direct observation
	failure to achieve operating vacuum of thirty-five (35) inches water column within five seconds after the system is activated, for three consecutive dispensing episodes	direct measurement/ observation
	a vacuum level below fifteen (15) inches water column for more than three seconds after the system has reached thirty-five (35) inches water column while dispensing	direct measurement/ observation
	a vacuum level above eighty-five (85) inches water column measured while dispensing to non-ORVR vehicles	direct measurement/ observation
	product dispensing when any ball valve installed at the vapor return line connection to each Healy Model 100 jet pump is closed	direct measurement/ observation
liquid drop out pot	opening drain valve at anytime other than when repair operations are underway	direct observation
	product dispensing when any ball valve installed at the liquid drop pot in the liquid removal line is closed	direct measurement/ observation

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G-70-196 series SaberVac		
equipment	defects	verification procedure
Husky 605104 nozzle	vapor splash guard (VSG) with a one and one-half (1.5) inch or larger slit	direct measurement/ observation
	VSG with a three-sixteenths (0.19) inch or larger hole	direct measurement/ observation
	the VSG flange portion doesn't make contact with entire fillpipe opening	direct observation
	defective vapor valve	GDF-01/GDF-03
system	any grade of a fueling point not capable of demonstrating an air to liquid ratio compliance with its performance standard as described in G-70-196	as described in G-70-196
	any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded	direct observation
	system not in compliance with the static pressure decay test criteria *	TP201.3 or equivalent
	underground storage tank gauge pressure greater than two inches water column over an extended period as defined by E.O. G-70-196 Exhibit 2	direct measurement/ observation
	pressure drop through system exceeding one-half (0.50) inch water column at sixty standard cubic foot per hour (60 SCFH)	TP201.4 or equivalent
	dispensing of product from any fueling point associated with a disconnected vapor line	direct measurement/ observation

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Defect Identification Methods Used In the Verification Procedure Column

1. TP201.5: Determination (by Volume Meter) of Air to Liquid (A/L) Volume Ratio of Vapor Recovery Systems of Dispensing Facilities, Adopted April 12, 1996

2. TP201.4: Determination of Dynamic Pressure Performance of Vapor Recovery Systems of Dispensing Facilities

3. TP201.3: Determination of Two-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities

4. GDF-01: Bag Test for Multi-Nozzle Vacuum Assist Systems

5. GDF-03: Pressure Integrity Performance Verification for Vacuum Assist Systems [Squeeze Bulb Test]

6. Method 9: 40 Code Federal Regulations Part 60 Appendix A: Reference Method 9/ EPA Section 3.12 Visible Determination of the Opacity of Emissions from Stationary Sources

7. G-70-186-187 Exhibit 5: Fillneck Vapor Pressure Regulation Fueling Test

8. EPO No. 26-F-1: Vapor Recovery Systems Field Compliance Testing

9. Storage Tank Pressure Device: described and shown in TSD Appendix 6